In order for the Office Action to establish a prima facie case of obviousness, at least three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the primary reference as proposed by the Examiner. Second, there must be a reasonable expectation of success. Third, the prior art references must disclose or suggest all the claim limitations. MPEP 2143 (emphasis added.) For the reasons set forth below, Applicant maintains that the Office Action fails to establish a prima facie case of obviousness.

Applicant's claim 1 describes a heat exchanger comprising "a plurality of projection portions formed on at least one of said first tube plates and on at least one of said second tube plates." Moreover, "said plurality of projection portions project into said refrigerant path and extend in an oblique direction relative to said inner fin, wherein said inner fin is connected to said plurality of projection portions." (Emphasis added). Similarly, Applicant's claim 4 describes a heat exchanger comprising "a plurality of projection portions formed on at least one of said first tube plates, wherein said plurality of projection portions project into said refrigerant path and extend in an oblique direction relative to said inner fin, wherein said inner fin is connected to said plurality of projection portions." (Emphasis added). For example, Applicant's specification states that by forming the projection portions on the first tube plate and the second tube plate, and by extending the projection portions in an oblique direction relative to the inner fin, "the efficiency of heat transfer between air passing through the outside of the heat transfer tube and the heat exchange medium may increase without substantially increasing the resistivity of the path through which the heat exchange medium flows." Appl'n, Page 2, Lines 6-8.

In contrast, Haruhiko describes a heat exchanger 1 which may comprise a plurality of tubes 2, and each tube 2 may comprise a pair of metal tube plates 4. Moreover, an inner fin 54 may be positioned between metal tube plates 4, and a protrusion 70 may be formed on a first of the pair of tube plates 4. Nevertheless, protrusion 70 only is formed on one tube plate 4, and does not extend in an oblique direction relative to inner fin 54.

Bossart describes a heat exchanger which may comprise a plurality of tubes 12. Each tube 12 may be formed by bending a piece of sheet metal so as to form a first tube plate 14 and a second tube plate 15. A first plurality of protrusions 33 may be formed on first tube plate 14, and a second plurality of protrusions 34 may be formed on second tube plate 15. Moreover,

in an embodiment, each protrusion 33 may be slanted in a first direction, and each protrusion 34 may be slanted in a second direction, such that a first lengthwise plane which includes protrusion 33 crosses with a second lengthwise plane which includes protrusion 34. See, e.g., Bossart, **Fig. 10**. Nevertheless, no inner fin is positioned between first tube plate 14 and second tube plate 15, and no inner fin is connected to protrusions 33 and/or protrusions 34. Specifically, Bossart states that the purpose of protrusions 33 and protrusions 34 is to create turbulence or agitation of a fluid flowing through tube 12, and that by creating turbulence, a velocity the fluid is increased, which facilitates a cooling of the fluid. See, e.g., Bossart, Column 1, Lines 28-43.

Nevertheless, Applicant maintains that Bossart does not disclose or suggest that the velocity of the fluid would increase if an inner fin were positioned between first tube plate 14 and first tube plate 15. Specifically, Applicant understands that by positioning an inner fin between first tube plate 14 and second tube plate 15, the velocity of the fluid would decrease relative to when an inner fin is not positioned between first tube plate 14 and second tube plate 15. (Emphasis added.) Therefore, Applicant also maintains that the Office Action has not satisfied its burden of establishing a motivation to modify heat exchanger 1 of Haruhiko, which includes inner fin 54, to include protrusions on metal tube plates 4 which extend in an oblique direction relative to inner fin 54, because Bossart does not disclose or suggest that such protrusions would increase a rate of heat exchange with an inner fin positioned between the tube plates. Therefore, Applicant respectfully requests that the Examiner withdraw the obviousness rejection of claims 1 and 4.

Claims 2-3 and 5-6 depend from claims 1 and 4, respectively. "If an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03 (citations omitted). Therefore, Applicant respectfully requests that the Examiner also withdraw the obviousness rejection of claims 2-3 and 5-6.

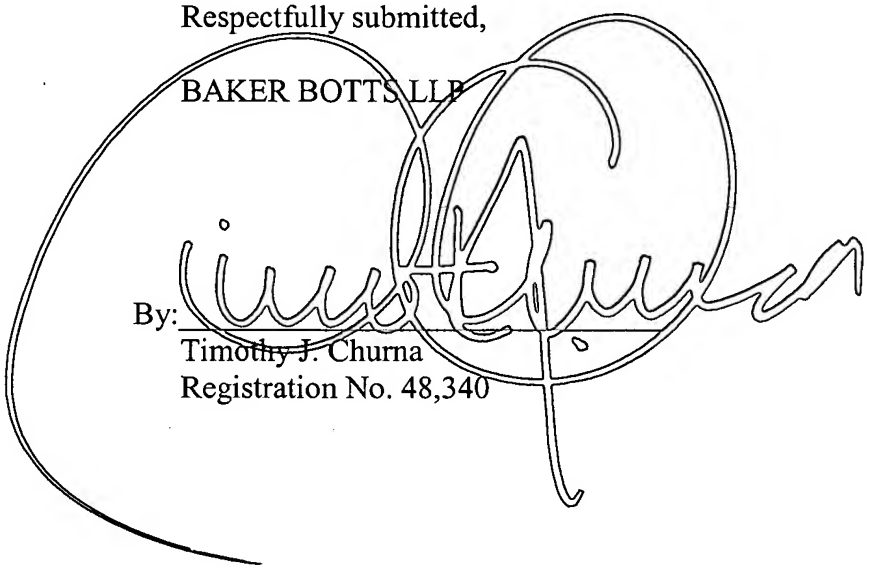
CONCLUSION

Applicant respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that an interview with Applicant's representatives, either in person or by telephone, would expedite prosecution of this application, we would welcome such an opportunity. Applicant believes that no fees are due as a result of this response. Nevertheless, in the event of any variance between the fees determined

by Applicant and those determined by the U.S. Patent and Trademark Office, please charge any such variance to the undersigned's Deposit Account No. 02-0375.

Respectfully submitted,

BAKER BOTTS LLP



By: _____
Timothy J. Churna
Registration No. 48,340

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Baker Botts LLP
The Warner; Suite 1300
1299 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2400
(202) 639-7700 (telephone)
(202) 639-7890 (facsimile)

JBA/TJC/dh